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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,666	11/21/2003	Dong Hoon Shin	9988.066.00-US	9057

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MCKENNA LONG & ALDRIDGE LLP
1900 K STREET, NW
WASHINGTON, DC 20006

EXAMINER	
HECKERT, JASON MARK	
ART UNIT	PAPER NUMBER
1792	

MAIL DATE	DELIVERY MODE
12/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/717,666	SHIN, DONG HOON	
	Examiner	Art Unit	
	Jason Heckert	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4* is/are pending in the application.

4a) Of the above claim(s) *4* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10/5/07 have been fully considered but they are not persuasive. Applicant asserts that Whipple fails to teach "comparing the value indicative of the determined electrical characteristic with a predetermined value, and continuing a supply of water for the second predetermined period after a predetermined first period if the value indicative of the determined electrical characteristic is not less than the predetermined value during the second predetermined time period." Examiner disagrees.

2. It appears as if the examiner and applicant both agree that Whipple does disclose supplying water, driving a motor, and determining a value indicative of an electrical characteristic of said motor. Whipple discloses that his device utilizes a microprocessor in conjunction with a computer program. Programmable microprocessors are known to include memory of some sort, as the programmed instructions must be stored somewhere. Generally, random access memory (RAM) or cache memory is utilized for this function. Examiner does not feel as if he is "reading a great deal into Whipple" as the applicant asserts, as this is well known in the current state of the art. Furthermore, Whipple distinctly states that the controller can be an application specific integrated circuit (ASIC) (col 5 lines 15-20). ASICs are known to include both processors and memory. Thus, examiner maintains that Whipple anticipated the use of data storing.

3. Figure 2 of Whipple exemplifies the controller's logic. Liquid is added and the phase angle difference, an electrical characteristic indicative of power consumption, is measured. As applicant asserted, measurements are taken in real time. Whipple then states that once power consumption surges have dampened out, water can be shut off. Examiner proposes the question, "How would the controller *know* when the power consumption surges have dampened out if it was not comparing the real-time assessed values to previously recorded or determined values?" Whipple even states that slope of the average signal is used to determine the end of motor surge (col. 6 lines 61-64). Slope is a comparison between two values. Thus when the slope and surges have decreased to an acceptable level, or dampened out, water supply is stopped. As stated previously, and acknowledged by the applicant, Whipple's controller computes such values in real time. Thus, at any given time, when the slope and surges have not dampened out, the water supply continues for what can be considered a "second predetermined time period". Whipple even states that measurements can be taken several times per second. Therefore many of these periods occur each second. Thus, considering the broadest reasonable interpretation, examiner maintains that Whipple discloses measuring values, comparing them to reference values, and continuing the supply of water until a desired measured value or numerical trait is reached.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3 rejected under 35 U.S.C. 102(b) as being anticipated by Whipple, III et al. (Whipple). Whipple discloses a dishwashing machine utilizing a control method wherein water is supplied to the machine, circulation begins in the circulation subsystem, and then power consumption surges are detected. The system then utilizes these measured surges to control the water provided (col. 8 lines 40-55). The control system is capable of detecting and recording multiple measurements over discrete time periods (col. 5 line 60 – col. 6 line 15). Comparing these measurements to previous measurements, or predetermined values, the control system determines the proper amount of liquid to be added. Whipple even states that slope of the average signal is used to determine the end of motor surge (col. 6 lines 61-64). Slope is a comparison between two values. Whipple also discloses water introduction is ceased when the power oscillations and slope dampen out, or lessen from the previously recorded measurements, or predetermined values (see figure 2). Until that numerical condition is reached, the water supply continues for what can be considered a "second predetermined time period". Whipple even states that measurements can be taken several times per second. Thus many of these periods occur each second. Whipple also discloses the use of current detection (col. 9 lines 24-25).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Whipple in view of Livingston et al. or Kiefer. Whipple discloses monitoring electrical characteristics over time and using such information to control water supply. Whipple does not disclose alerting the user of an error. Error messages in response to problems occurred during process control are known in the art and not considered to be novel, especially if the specific process control is already known in the art. Furthermore, Livingston et al. and Kiefer disclose various means to alert the user of problems, including speakers and displays. It would have been obvious at the time of the invention to modify Whipple and include some sort of error message, as is well known and disclosed by Livingston et al. or Kiefer, to alert the user of the errors in the control scheme.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Heckert whose telephone number is (571) 272-2702. The examiner can normally be reached on Mon. to Friday, 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMH

MICHAEL BARR
SUPERVISORY PATENT EXAMINER